

Seattle Monorail Project

Position Paper Number Two

Station Design and Targeted Route Issues

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Seattle Planning Commission

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Introduction

The Seattle Planning Commission and Seattle Design Commission, are committed to providing constructive advice to the ETC and the City regarding the planning and design aspects of the proposed monorail project. The Commissions had early briefings on the project in the summer of 2001, and began collaborating in the review of the Seattle Monorail project in the fall of 2001. Their individual and joint efforts so far have resulted in the following products:

- *Minutes of the Planning Commission (07/14/01) and Seattle Design Commission (07/19/01 and 11/15/01)*
- *Joint comments on the ETC's Design Guidelines (03/11/02)*
- *Position Paper Number One—System Wide Design (03/26/02)*

Staff and members of the Commissions and the ETC set forth the following goals for the work sessions:

- To understand the implications of specific design and alignment decisions on future elements of the system;
- To discuss basic choices that will affect how the system will fit into neighborhoods.
- To discuss how decisions will serve the city's—and region's—transportation needs overall; and
- To develop conclusions in the form of formal advice and position papers related to planning and design aspects of the elevated transit system.

The Planning and Design Commissions frequently collaborate to offer their extensive experience as advisors on a range of projects, including Sound Transit's Link Light Rail, neighborhood plans, and numerous site-specific projects throughout the City. They have appreciated the excellent

information presented by ETC staff and consultants about a range of topics relating to monorail technology . The work sessions were facilitated by Design Commission Director John Rahaim and Planning Commission Director Marty Curry. All participants contributed to the discussions.

The shared goal of the Commissions is to ensure that the proposed elevated transit system, if it is endorsed and funded, will meet community development goals and urban design principles. The Commissions want to help the ETC and the City of Seattle anticipate planning needs and identify potential design and community relations issues. More important, the Commissions seek to identify opportunities for the ETC to create a monorail system which functions effectively as part of the city's overall transportation system and serves Seattle's sense of civic pride and neighborhood character.

It should be noted that this paper does not address broader planning issues, such as the ETC's potential contribution to the city's neighborhood planning and growth management goals. These broader issues will be the focus of a forthcoming position paper to be issued by the Seattle Planning Commission in early summer, 2002.

The following pages summarize the recommendations that resulted from Work Session #3.

- I. Suggested Principles to Guide Design of Monorail Stations
- II. Background and Issues surrounding Targeted Route Segments or 'Hot Spots'

These recommendations are offered in the spirit of providing constructive advice to the ETC and City as both tackle a multitude of decisions before and after the public vote in November 2002.

Station Design

Background

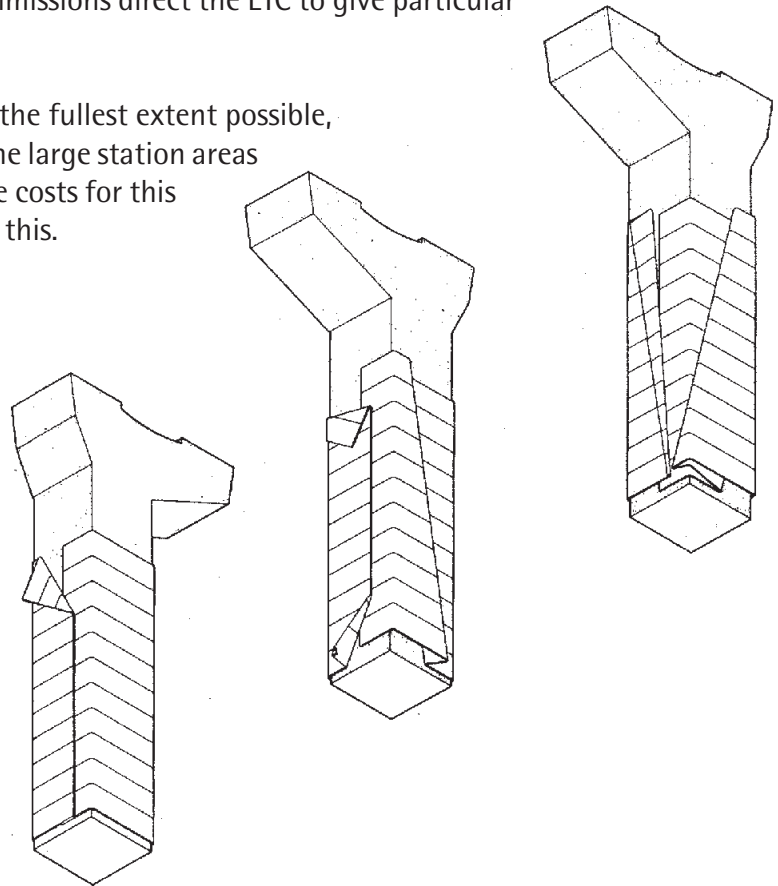
Approximately 18 monorail stations will be located along the proposed 14 mile monorail route. Because these stations will be elevated, their design and location will have a substantial impact on the city's built environment, particularly Seattle's center city and neighborhood streetscapes along the monorail alignment.

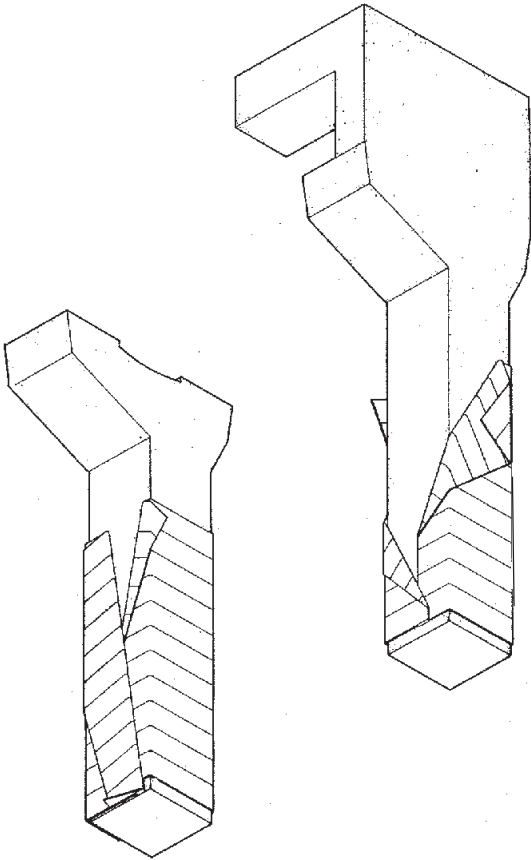
Direction

Significant attention must be paid in the design of stations to ensure that the pedestrian and public realm is not diminished, that historic resources are respected and that streetscapes, open spaces, vistas and natural light are maintained to the greatest degree possible.

The ETC issued their final Design Guidelines for the Guideway and Stations of the Seattle Monorail system on May 22, 2001. The Design and Planning Commissions direct the ETC to give particular focus to the following key station guidelines:

- **Integrate stations into adjacent buildings** to the fullest extent possible, to reduce the visual and functional impacts of the large station areas on public streets. Identify the public and private costs for this integration and seek partnerships to accomplish this.
- **Maximize natural light**, particularly at the street level, by making station elements as transparent or translucent as possible. Provide sufficient lighting on, adjacent to, and underneath station platforms to create safe and attractive spaces.
- **Minimize glare impacts** from and on adjacent buildings and activities.
- **Provide easy and apparent pedestrian connections** to stations, coordinating with the City on land use, transportation, open space plans and improvements.
- **Site stations to minimize intrusion into public and private open spaces**, including parks, plazas and squares.
- **Exercise care in locating stations** to minimize impacts on designated view corridors.





Above and left: An unexecuted proposal to wrap, in limestone, the Westlake Center monorail station guideway piers. Design Architect: Clint Pehrson, Architect of Record: NBBJ Architects, 1987
Drawing courtesy of Clint Pehrson Architects.

- **Design stations for safety and security** – both real and perceived.
- **Implement civic improvements** beneath the stations and guideway in coordination with the City to help mitigate impacts and encourage use of the system.
- **Design columns that are superior examples of civic architecture.**
- **Provide a fully funded, integrated arts program** and demonstrate a commitment to the City's 1% for Art program.
- **Design station platforms to be no larger than necessary** to accommodate expected passenger volume.
- **Integrate pedestrian amenities** into or adjacent to stations such as retail services and community display panels
- **Include drop off/pick up zones** and transit connections in the station design.
- **Identify impacts and costs of station area development**, e.g. access and sidewalk requirements, and include them as part of the budget.

Process

To ensure ample review and to allow for sufficient public comment, the Planning and Design Commissioners also identified key process elements:

1. Design of stations, including station elements, should be reviewed on a case-by-case basis.
2. Commissioners expressed significant concern over the proposed use of a design/build process since it limits the ability to shape design to the very early conceptual stages of the project, is difficult to control the design to a high level of detail and does not assure high construction practice as changes to materials, finishes, and building techniques are made in the field.
3. Make available many detailed illustrations of stations and the guideways, at a range of scales and perspectives, prior to the November election.

Targeted Route Segments

Commissioners and ETC staff identified a number of discrete segments among the proposed route alternatives that warrant additional focus and discussion. These nine targeted sections or 'hot spots' represent areas of significant challenge and in some cases, exceptional opportunity.

Route Options Hot Spots

- Seattle Center
- South Lake Union –Fifth Avenue/
West Mercer/Dexter Avenue
- Downtown - Westlake
- West Emerson/Fifteenth Northwest/
Nickerson/Fremont Bridge
- Second Avenue
- King Street Station/4th Avenue
- Transit Center at Spokane Street/
Avalon Way
- Bridges
- Maintenance Facility



Seattle Center

Background

A monorail connection to Seattle's premiere arts and entertainment venue offers a number of key advantages. However, the routes initially proposed by ETC would create impacts unacceptable to either the Uptown neighborhood or the Seattle Center itself.

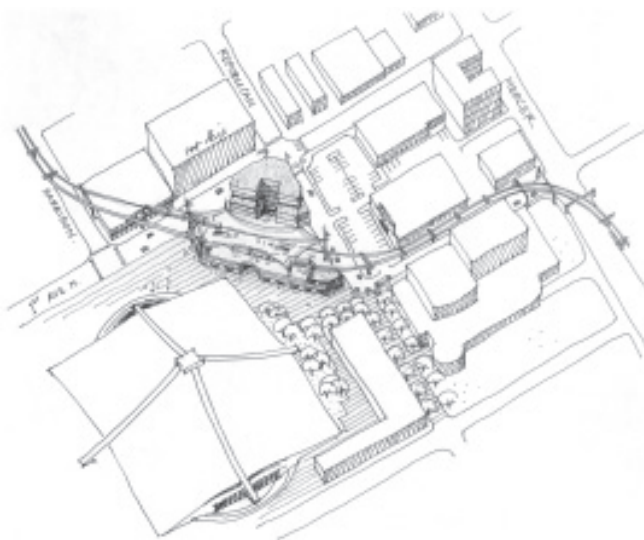
To find a solution that could meet everyone's needs, the Planning and Design Commissions facilitated two additional special working sessions on February 13, and March 29, 2002. These meetings were attended by Elevated Transit Company and Seattle Center staff and representatives from the Uptown neighborhood. At the first meeting, potential alignments north, south and through the Seattle Center were identified for further study. At the second session, the results of this analysis were reviewed.



Potential routes north or south of the Seattle Center

Direction

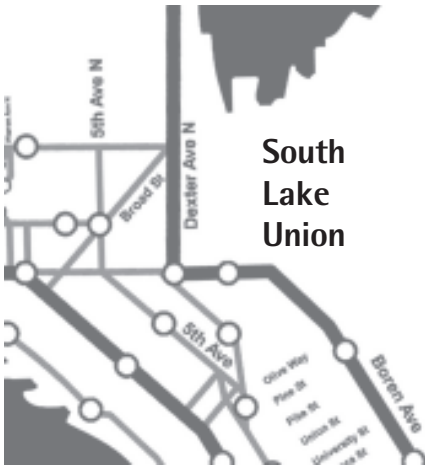
The consensus of those attending the second meeting was that an alignment along the north side of the Seattle Center on Mercer Street (see illustrations below) is the preferred solution, with a preference for the Harrison alignment consistent with the neighborhood plan. While the Uptown neighborhood still favors a Warren/First Avenue route, neighborhood representatives found this northern alignment an acceptable option.



Proposed monorail stations for a Harrison alignment, above or Republican alignment, right.

Drawings courtesy of the Cascade Design Collaborative





South Lake Union – Seattle Center/West Mercer/Dexter Avenue

Background

Many representatives of the South Lake Union community have recommended that the monorail not access their neighborhood directly. Instead, the community prefers that monorail stations be located on the perimeter, with the interior served by a proposed internal trolley system.

Issues

The environmental impact statement describes two potential monorail stations for this neighborhood. The first is at Westlake/Denny Way; the second at Harrison/Thomas. Given the potential for significant residential and commercial growth in the area, combined with the possible future lidding of Aurora and removal of Broad Street, a station located on Fifth Avenue and Thomas seems to offer the best opportunity to serve this community.



Former Westlake Monorail Station.

Downtown – Westlake

Background

Westlake Park, located in the hub of Seattle's central retail district, is among the most important downtown open spaces. The proposed Fourth Avenue alignment would have significant visual, functional and esthetic impact on the park, streetscape and adjacent structures.

Issues

The Commissioners expressed serious concerns about the impact of the monorail not only on Westlake Park but the entire center city. To better assess the impact of the monorail on light, street ambience and views, Commissioners strongly encouraged the development of numerous simulations and models at a variety of scales.

West Emerson/15th Northwest/West Nickerson/ Fremont Bridge

Background

The ETC is assessing four route options along the west and north slope of Queen Anne Hill. Two routes would use 15th Avenue NW crossing the Lake Washington Ship Canal either at 20th Avenue NW or 15th Avenue NW. A third route would use West Nickerson Street, crossing at 3rd Avenue W. A fourth route would cross the Canal at the Aurora Bridge and travel across Fremont to Leary Way.

Issues

The Nickerson station should be located to maximize connections to north Queen Anne's residential population. Likewise, the proposed Emerson station would better serve the existing commercial/residential area if it were moved east to 15th Avenue NW.

Many Commissioners felt the Leary Way alignment produced unacceptable impacts on the Fremont neighborhood and the Burke-Gilman Trail and urged the ETC to reconsider this route option.



North Queen Anne Hill

Second Avenue

Background

Second Avenue between Yesler and Denny is one of downtown Seattle's key commercial streets. During the last twenty years it has also experienced major new residential development.

Issues

A monorail alignment on Second Avenue would have profound impacts on adjacent structures—particularly on residential buildings in Belltown. A monorail alignment along this corridor would also adversely impact streetscapes, view corridors and many public open spaces.

King Street Station/4th Avenue



King Street Station

Background

King Street Station is evolving into a major transportation hub serving the Waterfront Streetcar, Link light rail, Sounder commuter rail and county bus systems.

Issues

Connections from the Monorail station to the King Street station should be clear and convenient.

The Commissioners encouraged the ETC to coordinate pedestrian links to the waterfront with the Alaskan Way Viaduct Project and work with the North Lot Redevelopment Team.

Commissioners urged that the alignment, guideway and station design respect the historic context of Pioneer Square. Either a Second or Fourth Avenue alternative would sandwich the Pioneer Square Historic District between two massive transportation systems, one of which bisects the district. This could jeopardize the National Historic Register status of the District and have serious impacts on the integrity of its character

Both the Fourth and Second Avenue routes to the King Street Station present significant negative light, view and streetscape impacts. As with the Westlake Park analysis, Commissioners strongly encouraged the development of numerous simulations and models at a variety of scales to assess the relative merits of Second versus Fourth Avenue alignment.

Transit Center at Spokane Street

Background

The ETC has proposed locating a transit center under the West Seattle Bridge at Avalon Way to improve bus/monorail service to West Seattle.

Issues

While the Commissioners support providing efficient multimodal service to West Seattle, this proposed transfer site is dark, noisy and isolated due to its location beneath the West Seattle Bridge. ETC is encouraged to review trip generation figures to ensure the transit center would be sufficiently used. Commissioners believed there was an opportunity to develop this area as a civic place and a gateway into West Seattle's primary business district. Commissioners recommended considering the intersection of Fauntleroy Way SW and SW Alaska Street as an alternative transit center location.

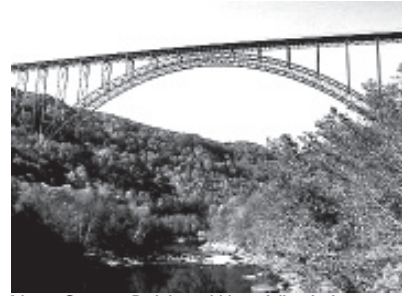
Bridges

Background

The West Seattle to Ballard monorail route will require high level spans across the Duwamish Waterway and Lake Washington Ship Canal.

Issues

These structures should be powerful gateway elements to Ballard and West Seattle while simultaneously defining and strengthening the esthetics of the overall monorail system. The Commissioners supports the ETC's commitment to provide bridges of exceptional and inspiring design. Likewise transition structures on the ends of the bridges must be thoughtfully designed to avoid dark recesses and expansive blank walls. Views from and of the existing West Seattle Bridge must be considered if it is employed to support or brace a monorail span.



New Gorge Bridge, West Virginia



Coos Bay Bridge, Oregon



Skytrain Fraser River Bridge
Vancouver, British Columbia

Maintenance Facility Design

Background

The monorail system will require a maintenance base located at some point along the alignment. This facility will provide preventive maintenance, repairs and storage space for in-service and spare trains. It could be as large as five acres and could be consolidated at one site or dispersed among several.

Issues

- Even when located in industrial areas, maintenance facilities can generate significant noise and light pollution. Consider impacts on adjacent residential and commercial uses when siting and designing this facility.
- To keep industrial jobs in Seattle, refrain from using out-of-city maintenance facilities, and minimize impacts on existing industrial uses.
- Explore co-locating the maintenance base with the Port of Seattle or other public-private partnerships.

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Commission History and Mission

Design Commission

The Seattle Design Commission was established in 1968 to ensure that the citizens of Seattle benefit from the highest level of design excellence and livability in the city's public buildings and open spaces. This nine-member Commission provides professional, multidisciplinary design expertise to the Mayor, City Council and the City at large.

Planning Commission

The Seattle Planning Commission is an independent body that advises the Mayor, City Council, and City departments on planning policies and physical development plans and projects. The SPC was established by City Charter and has 15 members who are Seattle residents. The Commission's work is framed by the Comprehensive Plan and its vision for Seattle into the 21st Century, and by a commitment to engaging citizens in the work of planning for and working to reach these goals.